

Definitions

Land

- The part of the earth that is not covered by water
- An area of the earth's surface, including all elements of the physical and biological environment that influence land use. It refers not only to soil, but also landforms, climate, hydrology, vegetation and fauna, together with land improvements such as terraces and drainage works.
- Land can also be defined in relation to ownership, demarcation, or use as any portion, large or small, of the surface of the earth, considered by itself, or as belonging to an individual or a people, as a country, estate, farm, or tract.; or in respect to its nature or quality; soil; as, wet land; good or bad land.
- FAO (1992) defined land as a delineable area, encompassing all attributes of the biosphere immediately above or below the earth surface , including the soil, terrain surface hydrology, the near-surface climate, sediments and associated groundwater reserve, the biological resources, as well as the human settlements pattern and infrastructure resulting from human activity

Land use

- The management of land to meet specified socio-economic objectives. Land use is described by the purposes for which the land is used, and the types and sequences of development, conservation and environmental management activities carried out upon the land.
- Tin order words, it refers to the purpose to which land is committed, including the production of goods (such as crops, timber and manufactures) and services (such as defence, recreation, biodiversity

and natural resources protection). Some land uses, such as cropping, have a characteristic land cover pattern.

Land management practice

- This refers to the means by which the land management objective is achieved - the 'how' of land use (For example cultivation practices such as minimum tillage or direct drilling).
- Some land management practices, such as waste disposal, tillage and rotation systems, may be discriminated by characteristic land cover patterns.

Tenure

- The form of an interest in land. Some forms of tenure (such as pastoral or mineral leases or nature conservation reserves) relate directly to land use and land management.

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Land capability and suitability

- Land capability assesses the limitations to land use imposed by land characteristics and specifies management options. Land suitability (part of the process of land evaluation) is the fitness of a given type of land for a specified kind of land use.

Land resources

- Land resources are the resources of climate, water, soils, forests, pastures and wildlife, on which agriculture, forestry and other forms of rural land use depend.

Land degradation - the reduction or loss of the biological or economic productivity from rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands.

Land degradation usually results from unsustainable land use. It destroys land resources

COMPONENTS OF LAND:

Components of land include the soil, the vegetation, the ground water, air, wildlife. Each of these components play significant role in bestowing quality on the land through thie interaction with one another.

Soil

Soil occur the interface between the atmosphere and the lithosphere, and in interface with the hydrosphere. The soil derives its components from these spheres and supports the growth of many plants and animals

Soil is a complex mixture of eroded rock, mineral nutrients, decaying organic material, water, air and millions of microscopic organisms involved in the process of rotting and breaking down of dead organic material and re-incorporating their nutrients into the soil

Vegetation

Vegetation refers to ground cover provided by plants in a region. It is the aspect of the plant life of land.

Vegetation types vary globally. In Sub-Sahara Africa, the vegetation types include the Mangrove forest (in the coastal regions), rainforests (tropical and subtropical), Savannah (tree savannah and grass savannah). In Nigeria, vegetation cover varies from the south (mangrove in the delta region) to rainforest in the southeast and southwest, and savannah (guinea, Sudan and Sahel) towards the north.

Vegetation type is function of the climate. Temperature and precipitation are two major elements of climate which determine variation in vegetation globally because these two factors interact together to affect plant growth.

Variation may occur in vegetation cover due to abrupt changes generally referred to as disturbance.

Example of disturbances include wildfires, high winds, landslides, floods, avalanches

Other factor that determines the type of vegetation cover of a place is the land-use. A piece of land use for agricultural purpose may be covered with one type of crop or the other. Land-use also affects the plant diversity of the vegetation cover and the landscape in general. The larger an area of land in consideration, the higher the heterogeneity of the vegetation cover.

Vegetation cover is a vital component of land as it play role in conservation of other components of land – soil, water, wildlife and biodiversity.

Water

Water as a component of land differs from large bodies of water such as sea, lake or ocean. Surface water such as streams, springs originating from the ground are regarded as part of land. Rivers may be considered based on scale of reference, *i.e.* in proportion to the surface area covered by soil and vegetation. Water as part of land includes all forms of groundwater – water in soil pores, and water in aquifers.

Groundwater sources are very vital for agricultural, municipal and industrial land-uses. Groundwater is made available for drinking, irrigation etc. through well digging, and bore holes. In some places, the water table – depth at which the soil pore spaces, fractures and voids in rock become completely saturated with water – may be low or high. When the water table is high (very close to surface), it is easier to obtain ground water through wells. When the soil pores are saturated for most parts of the year, hydromorphic condition of the land obtains. And such land requires special land-use and management

Air

Air - a colourless, odourless gaseous mixture of nitrogen oxygen and other gases in less amounts – is a component of land. Air is important for survival of plant and animals below-ground and above-ground. Functionality of other components of land depends much on air quality.

Globally, the changing air quality is a serious challenge as it affects important climatic factors resulting in global warming. Release of greenhouse gases – CO₂, methane, NO₂ etc, into the atmosphere coupled with depletion in vegetation (which acts as sink and processor of the gases to maintain balance), pose serious challenge to the stability of the planet. Air quality is also affected by pollution. When acid-forming gases released into the atmosphere get precipitated by on land in acid rain, it becomes source of disturbance which results in change vegetation or destruction of land quality. Another source of pollution which affect air quality is the traffic.

Animals

Terrestrial animals constitute a component of land. Some of these animals dwell in the soil, some dwell on trees. Soil animals range from the microscopic soil fauna to the large macrofauna. Most soil fauna play significant roles in ecosystem services such as nutrient cycling which are important for maintenance of land quality and restoration of degraded land.

Most large terrestrial animals constitute games and wildlife resources. Animals are hunted for food. Other wildlife resources obtain from animals include honey from bees, hides from mammals and land-dwelling reptiles.